



UNITED STATES PATENT AND TRADEMARK OFFICE

dm
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,549	06/19/2000	Juris Sulcs	ADV B-781	4068
7590	06/02/2004		EXAMINER	
Duane Morris 1667 K Street N W Suite 700 Washington, DC 20006			SANTIAGO, MARICELI	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/597,549

Applicant(s)

SULCS ET AL.

Examiner

Mariceli Santiago

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-21 and 23-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6,8-21 and 27-42 is/are allowed.
- 6) ☒ Claim(s) 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Amendment, filed on March 11, 2004, has been entered and acknowledged by the Examiner.

Cancellation of claims 7 and 22 has been entered.

Claims 1-6, 8-21 and 23-42 are pending in the instant application.

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 23-26 are rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, since they are dependent upon a cancelled claimed.

Allowable Subject Matter

Claims 1-6, 8-21 and 27-42 are allowed over the prior art of record.

Art Unit: 2879

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 1, and specifically comprising the limitation of positioning a mold having a surface defining a chamber cavity of a desired shape over the heated thickened wall area, the chamber cavity defining surface having a portion for defining a canoe-shaped portion of the arc tube chamber, internally pressurizing the tube to expand the heated thickened area of the tube against the internal wall of the mold cavity to thereby form a chamber in the tube, and removing the mold from the chamber to thereby provide an arc tube chamber intermediate open tubular end portions.

Regarding claims 2-6, 8-17, 34 and 35, claims 2-6, 8-17, 34 and 35 are allowable for the reasons given in claim 1 because of their dependency status from claim 1.

Regarding claim 18, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 18, and specifically comprising the limitation of the mold defining a cavity having a flattened portion extending over 50% or more of the maximum length of the cavity.

Regarding claim 33, claim 33 is allowable for the reasons given in claim 18 because of its dependency status from claim 18.

Regarding claim 19, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 19, and specifically comprising the limitation of positioning a mold having an elongated chamber cavity over the heated thickened wall area, the chamber cavity having a flattened portion extending between about 50% and about 80% of the maximum length of the cavity, internally pressurizing the tube to expand the heated thickened area of the tube against the internal wall of the mold cavity to thereby form a chamber

Art Unit: 2879

in the tube, and removing the mold from the chamber to thereby provide an arc tube chamber intermediate open tubular end portions.

Regarding claims 20-21, claims 20-21 are allowable for the reasons given in claim 19 because of their dependency status from claim 19.

Regarding claim 27, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 27, and specifically comprising the limitation of the mold having a surface defining a cavity for molding a canoe-shaped portion of the chamber.

Regarding claims 28-32, claims 28-32 are allowable for the reasons given in claim 27 because of their dependency status from claim 27.

Regarding claim 36, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 36, and specifically comprising the limitation of forming a bulbous chamber in the tube having a lateral cross-section at the central portion thereof formed by first and second circular portions, the ratio the radius of curvature of the first portion to the radius of curvature of the second portion being between about 1.5 and about 5.

Regarding claim 37, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 37, and specifically comprising the limitation of forming a bulbous chamber in the tube having a lateral cross-section at the central portion thereof formed by a circular arc of between about 220 degrees and 340 degrees and a non-curved portion.

Regarding claim 38, claim 38 is allowable for the reasons given in claim 37 because of its dependency status from claim 37.

Regarding claim 39, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 39, and specifically comprising the limitation

Art Unit: 2879

of forming a light emitting chamber in said tube having an upper portion longitudinally conforming generally to the shape of the arc to be drawn in the chamber and a canoe-shaped lower portion.

Regarding claim 40, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 40, and specifically comprising the limitation of positioning a mold having a surface defining a cavity for molding a chamber having a portion longitudinally conforming generally to the shape of the arc to be drawn in the chamber opposite of a canoe-shaped portion, internally pressurizing the tube to expand the heated thickened area of the tube against the internal wall of the mold cavity to thereby form a chamber in the tube, and removing the mold from the chamber to thereby provide an arc tube chamber intermediate open tubular end portions.

Regarding claim 41, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 41, and specifically comprising the limitation of forming a bulbous chamber intermediate the end portions of the tube, the chamber having a flattened portion extending over 50% or more of the maximum length of the chamber.

Regarding claim 42, claim 42 is allowable for the reasons given in claim 41 because of its dependency status from claim 41.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2879

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (571) 272-2464. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MSgo 6/1/04
Mariceli Santiago
Patent Examiner
Art Unit 2879

VIP Patel
VIP PATEL
PRIMARY EXAMINER